

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

"CONTOUR CULTIVATION"

Broadcast No. 9 in a series
of discussions of soil con-
servation in the Ohio Valley.

WLW, Cincinnati

June 25, 1938 6 - 6:15 p.m.

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
Dayton, Ohio



SOUND: Thunder, followed by rain...

ANNOUNCER

Fortunes Washed Away!

MUSIC: Fading...

ANNOUNCER

Famed is Patrick Henry of Virginia, and famed is his "give me liberty or give me death." Not so well known, but equally important in the chronicles of a nation that must battle foes within its walls, as well as without, is his statement that "since the achievement of our independence, he is the greatest patriot who stops the most gullies."

MUSIC: Fading...

ANNOUNCER

Soil erosion, a critical problem over most of the United States today, was beginning to make itself known, even in the days when a struggling republic was pushing westward after an exhausting rebellion against the mother country--after exhausting much of the soil on its eastern seaboard. Even during the Revolution, an English officer held captive at Charlottesville noted...

ENGLISH OFFICER

These Virginia farmers seem to make few agricultural adaptations ...corn continues to be "cross plowed" regardless of the situation of the field. One furrow is conducted up and down the slope for every one that crosses it. The soil washing in the lands of the upper Piedmont makes the James River look like a torrent of blood in times of high water!



MUSIC: Fading...

ANNOUNCER

Others in the vicinity of Charlottesville noted the golden rivers that were carrying out to sea the treasures of the land. Thomas Jefferson's father had cleared "Shadwell", a hill plantation, cleared it from the wilderness by girdling, hacking, and firing, had put it to the plow in 1732. Years later, farms around Charlottesville were so washed out that Thomas Jefferson, then an old man living at Monticello, made anxious note of it...

JEFFERSON

My son-in-law, Colonel Randolph, has commenced horizontal plowing his corn crop. I have seen the results of the method during a heavy downpour. On Colonel Randolph's farm, horizontal furrows arrested the water at every step until it was absorbed, or at least had deposited the soil it had taken up, whereas on other fields the torrents had swept everything before them and greatly injured the fields.

MUSIC: Fading...

ANNOUNCER

Thus, to Colonel Randolph, Thomas Jefferson gave the credit for inventing horizontal plowing, or contour tillage as we know it today. In 1817, he told Tristram Dalton...

JEFFERSON

A method of plowing our hillsides horizontally, introduced into this hilly part of our country by Colonel Randolph, may be worth mentioning to you. Every rain before, while it gave temporary refreshment, did permanent evil by carrying off our soil. Fields were no sooner cleared than washed. At present we lose none of our soil, the rain not absorbed at the moment of its fall being retained in the hollows between the beds until it can be absorbed...horizontal plowing, with the use of plaster and clover, will restore this part of our country to its original fertility...

MUSIC: Fading...

ANNOUNCER

But Colonel Randolph, progressive though he was, did not invent horizontal plowing, or cultivating across the slope, instead of up and down hill. It was an old practice in Europe. Roman literature referred to it. English and Scotch writers on husbandry advocated it. Richard Peters, of Pennsylvania, found that a Hessian soldier, who had settled after the Revolution, used a heavy hillside plow to lay his furrows in curves along the hillside. But American farmers are practical inventors and adapters. Thousands of them have learned that contour tillage does save the soil.

SOUND: Rain pattering, woman humming or singing softly.

FARMER

Hey, Sarah. By George! I've got somethin'. Look!

WIFE

What in the world...what's the matter?

FARMER (Excitedly)

Look down below---there at the barn. See that water pourin' out o' the down spout?

WIFE (Disgustedly)

My goodness, Henry! Have you lost your mind? The water's been pouring out o' that spout every time it's rained for forty years.

FARMER

Sure, but now look in the eave trough, see how it runs there sorta slow and easy like.

WIFE

Well, it's been doing that for forty years, too. Henry, I think you better get to work. You're...

FARMER

No, no...now, listen to me! This may sound foolish but wait... see yonder across the branch, where those furrows run on the level...how full o' water they are. But over here...those rows up and down hill. The water's all runnin' away and cuttin' gullies.

WIFE

Oh, yes...I see what you're driving at now. Well, why don't you run all the rows around the hill.

FARMER

Next summer I will. By George, why didn't I see that before...

MUSIC: Fading...

SOUND: Negro singing. Then gee-hawing his mule. Clinking of harness.

NEGRO

Haw, Tobe. G'up. (Giddap) Ho, mule. (Singing) Go long mule!
...Well, we gonna go round the hill. Round the hill, round
the hill...(Singing fades)

MUSIC: Fading...

ANNOUNCER

Long ago, a negro and a mule found that the easiest way to
cultivate a slope was on the level. In the hill country,
farmers have planted on the contour for many years. More
recently those in the gently rolling farmlands--farmers like
Charles Hayes of Indiana--also have learned about contour
cultivation...

SOUND: Motor, cutting off.

EICHENBERRY

Hello, Charley!

HAYES

Hello yourself, George Eichenberry, you old soil conservation
man! I'm just getting ready to quit work. How about stopping
for dinner?

EICHENBERRY

Thanks, Charley, but I can't...Just dropping by. That field
over there that you contoured is all right, huh?

HAYES:

George, this contour plowing is all right. I saved a lot of
soil this year, and on that strip cropped field, I got one of
the best meadows I ever had. I think contour plowing did it.
Kept more moisture in the soil. I got a better yield, too,
and that doesn't make me very mad!

EICHENBERRY

Then you'll keep on contour plowing your fields?

HAYES

I sure won't go back to up-and-down-hill farming.

EICHENBERRY

That's all I want to know. I'll be seeing you again...

MUSIC: Fading...

ANNOUNCER

One word describes the contour farming design as you see it from an airplane high above--marbled. Square farming in round country is going out. Instead of a square pattern imposed upon round hilly country, crop fields are wrapped around the hills and slopes. Newly arranged fields of cotton, corn, clover, lespedeza and pasture interlock, hug the soil, protect it from soil erosion. Every wisp of grass, every shovel furrow opposes run-off water. With dollars running down the streams, with mud settling in Zanesville, Cincinnati, Louisville, and Paducah, contour tillage has become the keystone of erosion control! The idea is spreading.

MUSIC: Fading...

SOUND: Farmer driving tractor, shuts off motor.

FARMER

Hi, Tom.

TOM

Howdy.

FARMER

Nice mornin'.

TOM

(Silence)

FARMER

Well, what's matter. Don't yuh like those crooked rows?

TOM

Bill, have yuh clean lost your mind? What's your idea zig-zaggin' 'round the hill like that--that's what I climbed the fence t' find out.

FARMER

Why, that's contour farmin' and contour strip-croppin'. These soil conservation fellers wanted me to try it. Stops washin' o' these gullies.

TOM

Think it'll work?

FARMER

Sure, 't least I'm gonna give it a try, wouldn't you?

TOM

Naw, I wouldn't--I'll keep on farmin' my way--this year anyhow. But I'll be lookin' across the fence...You try it and I'll watch.

ANNOUNCER

That's the way conservation farming has spread. Yes, a few farmers tried it...now others are cultivating on the contour. And here is Gene Charles, of the Soil Conservation Service in Dayton. Gene, contour tillage does seem the logical way to plow sloping fields.

CHARLES

It does, _____. More and more farmers are finding that out, and once they try it they don't go back to up-and-down cultivation.

ANNOUNCER

It looks to me as if contour cultivation is like a railroad track, curving but on the level.

CHARLES

That's a good comparison, and we might carry it even farther. Up-and-down hill farming is like a roller-coaster, humpy--and the water picks up plenty of speed when it goes down hill.

ANNOUNCER

And plenty of soil, too.

CHARLES

Plenty of it. Another thing--contour tillage goes hand in hand with other soil-saving practices such as terracing and strip cropping. And now, _____, let's bring Hugo T. Hesson into the discussion. Mr. Hesson is project manager of the Soil Conservation Service demonstration area in Pendleton and Grant counties in Kentucky. Will you join us, Hugo?

HESSON

I'll be glad to, Gene. And you know what I think of contour tillage, if you were going to ask that question.

CHARLES

I was going to, Hugo, even though I do know that you're strong for contour cultivation.

HESSON

The farmers in the outer bluegrass region are strong for it, too. Of course, with such steep slopes, they found out a long time ago that farming on the level was practical.

CHARLES

Don't forget--farm livestock likes to work on the level, too.

HESSON

That's true. You might say that a cow, grazing on a hillside, represents contour cultivation in its simplest form. Just watch a cow--or a sheep or a horse will do--as she forages on a steep hillside. She walks on the level, around the hill. That's why so many pasture hillsides are marked with a cowpath-stairstep pattern--the result of livestock grazing around and around the hill.

CHARLES

So the farmer who contour tills his land is just using good horse-sense, or call it cow-sense, if you like.

HESSON

That's the idea.

CHARLES

I'm just wondering, Hugo, if you would name a Kentucky farmer or two who has found out that contour tillage pays. You ought to know plenty of them.

HESSON

I do, Gene, and the first one I think of is Mr. E. C. Farmer, of Henderson County, Kentucky. He wanted to do a little experimenting, so he set out two plots of dark tobacco on rolling land. One was planted strictly on the contour. One in straight rows without regard to the slope. The two plots were set with plants from the same bed, at the same time. They received the same treatment. Each plot, by the way, was four acres.

CHARLES

And what happened?

HESSON

The contour plot matured ten days earlier, and produced 560 more sticks of tobacco. The tobacco planted on the contour was fully 25 percent larger. As to the cash sales, tobacco from the straight-row plot sold for \$240. The tobacco from the contour plot sold for \$450, a gain of \$210 on four acres.

CHARLES

No wonder Mr. Farmer likes contour cultivation. And how about erosion?

HESSON

I was coming to that. It so happens that the Dixon CCC camp had planned a tour of cooperating farms, and the tour included a stop at Mr. Farmer's place. It rained the night before. One hundred farmers made the tour, and here is what they saw: the small furrows between the rows of the contour plot caught the rain, holding water until they were level-full. Rain falling on the straight-row plot had washed gullies between the rows, leaving many roots exposed.

CHARLES

Hugo, that meant two losses: the loss of soil and a lower yield of tobacco--which you already mentioned.

HESSON

Sure, Gene. Now, I'm thinking of another farmer who lives in Ohio--W. C. Inks, of Knox County. Until he worked out a soil-conserving program in 1935, he was losing considerable topsoil. In 1936, he planted all of his corn acreage on the contour. Mr. Inks not only stopped erosion, but the additional moisture saved by contour cultivation gave a substantial increase in the corn yield.

CHARLES

And Mr. Inks won't go back to up-and-down-hill farming.

HESSON

No, nor will J. W. Hancock and his nephew, C. N. Hancock, of Union County, Kentucky.

ANNOUNCER

What was their experience?

HESSON

After considerable discussion, they planted their corn around the hill for the first time in 1937. A neighbor laughed at the crooked rows on the Hancock farm, and planted his field up and down the hill as usual. A few days later, they had a gully-washer.

ANNOUNCER

And it washed gullies, naturally.

HESSON

Did it? Well, not on the Hancock farm. The field planted on the contour wasn't seriously damaged. On the neighboring farm, though, results were different. Water followed the corn planter tracks down the hill, made a small gully in each row, and washed out most of the corn that had been planted.

CHARLES

The two fields did make an interesting comparison, then.

HESSON

And the comparison is decidedly in favor of contour cultivation. These are only a few examples. Charles Bell, who is a cooperator with the CCC camp at Clarksville, Tennessee, almost ran the soil conservationist off his farm when he suggested contour farming. But after he tried it, he's quite sold on it. I could go on and on naming others who have tried contour planting and like it.

CHARLES

If it weren't for old man time, Hugo. Thank you for telling us of these interesting farmer experiences.

ANNOUNCER

I imagine that a good many people would like to know more about farming on the level.

CHARLES

The old stand-by, the county agricultural agent, is always available for such information, _____, or any Soil Conservation Service office will be glad to help out. If it's written material you want...

ANNOUNCER

A bulletin would help.

CHARLES

This bulletin, "Conserving Corn Belt Soil," contains a chapter on contour tillage. If our listeners want it, they should write to Soil Conservation, Dayton, Ohio, and ask for "Conserving Corn Belt Soil." It should answer a good many questions.

SOUND: Thunder, followed by rain...

ANNOUNCER

If you want a copy of the bulletin, "Conserving Corn Belt Soil," write to Soil Conservation, Dayton, Ohio. Next week, soil conservation research...

SOUND:: Up on thunder and rain...

ANNOUNCER

This is an educational presentation of the Nation's Station.

SOUND: Thunder, followed by rain...

ANNOUNCER

If you want a copy of the bulletin, "Conserving Corn Belt Soil," write to Soil Conservation, Dayton, Ohio. Next week, soil conservation research...

SOUND:: Up on thunder and rain...

ANNOUNCER

This is an educational presentation of the Nation's Station.

